TABLE 8-1
SELECTION OF EXPOSURE PATHWAYS
SAUGET AREA 1

Scenario Timeframe	Medium	Exposure Medium	Exposure Point	Receptor Population	Receptor Age	Exposure Route	Type of Analysis	Rationale for Selection or Exclusion of Exposure Pathway	Document
Current/Future	Surface Soil	Surface Soil	Site G	Outdoor Worker	Adult	Ing/Derm	None	Pathway incomplete. COPCs were not identified.	ENSR. 2001
Current/Future	Surface Soil	Outdoor Air	Site G	Outdoor Worker	Adult	Inh	None	Pathway incomplete. COPCs were not identified.	ENSR. 2001
Current/Future	Groundwater	Outdoor Air	Site G	Outdoor Worker	Adult	Inh	Quant	Pathway potentially complete.	ENSR. 2001
Future	Surface Soil	Surface Soil	Site G	Construction Worker	Adult	Ing/Derm	None	Pathway incomplete. COPCs were not identified.	ENSR. 2001
Future	Surface Soil	Excavation Air	Site G	Construction Worker	Adult	Inh	None	Pathway incomplete. COPCs were not identified.	ENSR. 2001
Future	Subsurface Soil	Subsurface Soil	Site G	Construction Worker	Adult	Ing/Derm	Quant	Pathway potentially complete.	ENSR. 2001
Future	Subsurface Soil	Excavation Air	Site G	Construction Worker	Adult	Inh	Quant	Pathway potentially complete.	ENSR. 2001
Future	Groundwater	Groundwater	Site G	Construction Worker	Adult	Ing/Derm	Quant	Pathway potentially complete.	ENSR. 2001
Future	Groundwater	Excavation Air	Site G	Construction Worker	Adult	Inh	Quant	Pathway potentially complete.	ENSR. 2001
Future	Leachate	Leachate	Site G	Construction Worker	Adult	Ing/Derm	Quant	Pathway potentially complete.	ENSR. 2001
Future	Leachate	Excavation Air	Site G	Construction Worker	Adult	Inh	Quant	Pathway potentially complete.	ENSR. 2001
Current/Future	Surface Soil	Surface Soil	Site G	Trespasser	7-18 yrs	Ing/Derm	None	Pathway incomplete. COPCs were not identified.	ENSR. 2001
Current/Future	Surface Soil	Outdoor Air	Site G	Trespasser	7-18 yrs	Inh	None	Pathway incomplete. COPCs were not identified.	ENSR. 2001
Current/Future	Groundwater	Outdoor Air	Site G	Trespasser	7-18 yrs	Inh	Quant	Pathway potentially complete.	ENSR. 2001
Current/Future	Soil Gas	Indoor Air	Adjacent to Site G: Wiese Building	Indoor Worker	Adult	Inhalation	Quant	Pathway potentially complete.	AECOM. 2009a
Current/Future	Surface Soil	Surface Soil	Site H	Outdoor Worker	Adult	Ing/Derm	Quant	Pathway potentially complete.	ENSR. 2001
Current/Future	Surface Soil	Outdoor Air	Site H	Outdoor Worker	Adult	Inh	Quant	Pathway potentially complete.	ENSR. 2001
Current/Future	Groundwater	Outdoor Air	Site H	Outdoor Worker	Adult	Inh	Quant	Pathway potentially complete.	ENSR. 2001
Future	Surface Soil	Surface Soil	Site H	Construction Worker	Adult	Ing/Derm	Quant	Pathway potentially complete.	ENSR. 2001
Future	Surface Soil	Excavation Air	Site H	Construction Worker	Adult	Inh	Quant	Pathway potentially complete.	ENSR. 2001
Future	Subsurface Soil	Subsurface Soil	Site H	Construction Worker	Adult	Ing/Derm	Quant	Pathway potentially complete.	ENSR. 2001
Future	Subsurface Soil	Excavation Air	Site H	Construction Worker	Adult	Inh	Quant	Pathway potentially complete.	ENSR. 2001
Future	Groundwater	Groundwater	Site H	Construction Worker	Adult	Ing/Derm	Quant	Pathway potentially complete.	ENSR. 2001
Future	Groundwater	Excavation Air	Site H	Construction Worker	Adult	Inh	Quant	Pathway potentially complete.	ENSR. 2001
Future	Leachate	Leachate	Site H	Construction Worker	Adult	Ing/Derm	Quant	Pathway potentially complete.	ENSR. 2001
Future	Leachate	Excavation Air	Site H	Construction Worker	Adult	Inh	Quant	Pathway potentially complete.	ENSR. 2001
Current/Future	Surface Soil	Surface Soil	Site H	Trespasser	7-18 yrs	Ing/Derm	Quant	Pathway potentially complete.	ENSR. 2001
Current/Future	Surface Soil	Outdoor Air	Site H	Trespasser	7-18 yrs	Inh	Quant	Pathway potentially complete.	ENSR. 2001
Current/Future	Groundwater	Outdoor Air	Site H	Trespasser	7-18 yrs	Inh	Quant	Pathway potentially complete.	ENSR. 2001
Future	Soil/Waste	Soil/Waste	Existing Utility Lines Adjacent to Site H	Utility Worker	Adult	Ing/Derm	Quant	Potentially complete pathway	ENSR. 2008
Future	Soil/Waste	Outdoor Air	Existing Utility Lines Adjacent to Site H	Utility Worker	Adult	Inhalation	Quant	Potentially complete pathway	ENSR. 2008
Future	Groundwater	Groundwater	Existing Utility Lines Adjacent to Site H	Utility Worker	Adult	Ing/Derm	None	Pathway incomplete; depth to groundwater is greater than utility depth.	ENSR. 2008
Future	Groundwater	Excavation Air	Existing Utility Lines Adjacent to Site H	Utility Worker	Adult	Inhalation	None	Pathway incomplete; depth to groundwater is greater than utility depth.	ENSR. 2008

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Scenario Timeframe	Medium	Exposure Medium	Exposure Point	Receptor Population	Receptor Age	Exposure Route	Type of Analysis	Rationale for Selection or Exclusion of Exposure Pathway	Document
Current/Future	Surface Soil	Surface Soil	Site I	Outdoor Worker	Adult	Ing/Derm	Quant	Pathway potentially complete.	ENSR. 2001
Current/Future	Surface Soil	Outdoor Air	Site I	Outdoor Worker	Adult	Inh	Quant	Pathway potentially complete.	ENSR. 2001
Current/Future	Groundwater	Outdoor Air	Site I	Outdoor Worker	Adult	Inh	Quant	Pathway potentially complete.	ENSR. 2001
Future	Surface Soil	Surface Soil	Site I	Construction Worker	Adult	Ing/Derm	Quant	Pathway potentially complete.	ENSR. 2001
Future	Surface Soil	Excavation Air	Site I	Construction Worker	Adult	Inh	Quant	Pathway potentially complete.	ENSR. 2001
Future	Subsurface Soil	Subsurface Soil	Site I	Construction Worker	Adult	Ing/Derm	Quant	Pathway potentially complete.	ENSR. 2001
Future	Subsurface Soil	Excavation Air	Site I	Construction Worker	Adult	Inh	Quant	Pathway potentially complete.	ENSR. 2001
Future	Groundwater	Groundwater	Site I	Construction Worker	Adult	Ing/Derm	Quant	Pathway potentially complete.	ENSR. 2001
Future	Groundwater	Excavation Air	Site I	Construction Worker	Adult	Inh	Quant	Pathway potentially complete.	ENSR. 2001
Future	Leachate	Leachate	Site I	Construction Worker	Adult	Ing/Derm	Quant	Pathway potentially complete.	ENSR. 2001
Future	Leachate	Excavation Air	Site I	Construction Worker	Adult	Inh	Quant	Pathway potentially complete.	ENSR. 2001
Current/Future	Surface Soil	Surface Soil	Site I	Trespasser	7-18 yrs	Ing/Derm	Quant	Pathway potentially complete.	ENSR. 2001
Current/Future	Surface Soil	Outdoor Air	Site I	Trespasser	7-18 yrs	Inh	Quant	Pathway potentially complete.	ENSR. 2001
Current/Future	Groundwater	Outdoor Air	Site I	Trespasser	7-18 yrs	Inh	Quant	Pathway potentially complete.	ENSR. 2001
Future	Soil/Waste	Soil/Waste	Existing Utility Lines Adjacent to Site I	Utility Worker	Adult	Ing/Derm	Quant	Potentially complete pathway	ENSR. 2008
Future	Soil/Waste	Outdoor Air	Existing Utility Lines Adjacent to Site I	Utility Worker	Adult	Inhalation	Quant	Potentially complete pathway	ENSR. 2008
Future	Groundwater	Groundwater	Existing Utility Lines Adjacent to Site I	Utility Worker	Adult	Ing/Derm	None	Pathway incomplete; depth to groundwater is greater than utility depth.	ENSR. 2008
Future	Groundwater	Excavation Air	Existing Utility Lines Adjacent to Site I	Utility Worker	Adult	Inhalation	None	Pathway incomplete; depth to groundwater is greater than utility depth.	ENSR. 2008
Current/Future	Soil Gas	Indoor Air	Site I: Cerro Guard House	Indoor Worker	Adult	Inhalation	Quant	Pathway potentially complete.	AECOM. 2009a
Current/Future	Soil Gas	Indoor Air	Adjacent to Site I: Sauget Village Hall	Indoor Worker	Adult	Inhalation	Quant	Pathway potentially complete.	AECOM. 2009a
Current/Future	Soil Gas	Indoor Air	Adjacent to Site I: Cerro Control Center	Indoor Worker	Adult	Inhalation	Quant	Pathway potentially complete.	AECOM. 2009a
Current/Future	Surface Soil	Surface Soil	Site L	Outdoor Worker	Adult	Ing/Derm	Quant	Pathway potentially complete.	ENSR. 2001
Current/Future	Surface Soil	Outdoor Air	Site L	Outdoor Worker	Adult	Inh	Quant	Pathway potentially complete.	ENSR. 2001
Current/Future	Groundwater	Outdoor Air	Site L	Outdoor Worker	Adult	Inh	Quant	Pathway potentially complete.	ENSR. 2001
Future	Surface Soil	Surface Soil	Site L	Construction Worker	Adult	Ing/Derm	Quant	Pathway potentially complete.	ENSR. 2001
Future	Surface Soil	Excavation Air	Site L	Construction Worker	Adult	Inh	Quant	Pathway potentially complete.	ENSR. 2001
Future	Subsurface Soil	Subsurface Soil	Site L	Construction Worker	Adult	Ing/Derm	Quant	Pathway potentially complete.	ENSR. 2001
Future	Subsurface Soil	Excavation Air	Site L	Construction Worker	Adult	Inh	Quant	Pathway potentially complete.	ENSR. 2001
Future	Groundwater	Groundwater	Site L	Construction Worker	Adult	Ing/Derm	Quant	Pathway potentially complete.	ENSR. 2001
Future	Groundwater	Excavation Air	Site L	Construction Worker	Adult	Inh	Quant	Pathway potentially complete.	ENSR. 2001
Future	Leachate	Leachate	Site L	Construction Worker	Adult	Ing/Derm	Quant	Pathway potentially complete.	ENSR. 2001
Future	Leachate	Excavation Air	Site L	Construction Worker	Adult	Inh	Quant	Pathway potentially complete.	ENSR. 2001
Current/Future	Surface Soil	Surface Soil	Site L	Trespasser	7-18 yrs	Ing/Derm	Quant	Pathway potentially complete.	ENSR. 2001
Current/Future	Surface Soil	Outdoor Air	Site L	Trespasser	7-18 yrs	Inh	Quant	Pathway potentially complete.	ENSR. 2001
Current/Future	Groundwater	Outdoor Air	Site L	Trespasser	7-18 yrs	Inh	Quant	Pathway potentially complete.	ENSR. 2001
Current/Future	CBS	CBS	Site M	Recreational Child	0-6 yrs	Ing/Derm	None	Pathway incomplete. Area is fenced and it is assumed a child cannot access.	ENSR. 2006
Current/Future	CBS	CBS	Site M	Recreational Teen	7-18 yrs	Ing/Derm	Quant	Pathway potentially complete.	ENSR. 2006
Current/Future	CBS	CBS	Site M	Construction Worker	Adult	Ing/Derm	Quant	Pathway potentially complete.	ENSR. 2006

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Scenario Timeframe	Medium	Exposure Medium	Exposure Point	Receptor Population	Receptor Age	Exposure Route	Type of Analysis	Rationale for Selection or Exclusion of Exposure Pathway	Document
Current/Future	Surface Soil	Surface Soil	Site N	Outdoor Worker	Adult	Ing/Derm	None	Pathway incomplete. COPCs were not identified.	ENSR. 2001
Current/Future	Surface Soil	Outdoor Air	Site N	Outdoor Worker	Adult	Inh	None	Pathway incomplete. COPCs were not identified.	ENSR. 2001
Current/Future	Groundwater	Outdoor Air	Site N	Outdoor Worker	Adult	Inh	None	Pathway incomplete. COPCs were not identified.	ENSR. 2001
Future	Surface Soil	Surface Soil	Site N	Construction Worker	Adult	Ing/Derm	None	Pathway incomplete. COPCs were not identified.	ENSR. 2001
Future	Surface Soil	Excavation Air	Site N	Construction Worker	Adult	Inh	None	Pathway incomplete. COPCs were not identified.	ENSR. 2001
Future	Subsurface Soil	Subsurface Soil	Site N	Construction Worker	Adult	Ing/Derm	None	Pathway incomplete. COPCs were not identified.	ENSR. 2001
Future	Subsurface Soil	Excavation Air	Site N	Construction Worker	Adult	Inh	None	Pathway incomplete. COPCs were not identified.	ENSR. 2001
Future	Groundwater	Groundwater	Site N	Construction Worker	Adult	Ing/Derm	None	Pathway incomplete. COPCs were not identified.	ENSR. 2001
Future	Groundwater	Excavation Air	Site N	Construction Worker	Adult	Inh	None	Pathway incomplete. COPCs were not identified.	ENSR. 2001
Future	Leachate	Leachate	Site N	Construction Worker	Adult	Ing/Derm	None	Pathway incomplete. COPCs were not identified.	ENSR. 2001
Future	Leachate	Excavation Air	Site N	Construction Worker	Adult	Inh	None	Pathway incomplete. COPCs were not identified.	ENSR. 2001
Current/Future	Surface Soil	Surface Soil	Site N	Trespasser	7-18 yrs	Ing/Derm	None	Pathway incomplete. COPCs were not identified.	ENSR. 2001
Current/Future	Surface Soil	Outdoor Air	Site N	Trespasser	7-18 yrs	Inh	None	Pathway incomplete. COPCs were not identified.	ENSR. 2001
Current/Future	Groundwater	Outdoor Air	Site N	Trespasser	7-18 yrs	Inh	None	Pathway incomplete. COPCs were not identified.	ENSR. 2001
Current/Future	Surface Soil	Surface Soil	Site N	Resident	Adult	Ing/Derm	Quant	Pathway potentially complete.	ENSR. 2001
Current/Future	Surface Soil	Produce	Site N	Resident	Adult	Ing/Derm	None	Pathway incomplete. COPCs with plant uptake potential were not identified.	ENSR. 2001
Current/Future	Surface Soil	Outdoor Air	Site N	Resident	Adult	Inh	Quant	Pathway potentially complete.	ENSR. 2001
Current/Future	Groundwater	Drinking water	Site N	Resident	Adult	Ing/Derm	None	Pathway incomplete. GW not used for drinking.	ENSR. 2001
Current/Future	Groundwater	Non-potable use	Site N	Resident	Adult	Ing/Derm	None	Pathway incomplete. COPCs were not identified.	ENSR. 2001
Current/Future	Groundwater	Outdoor Air	Site N	Resident	Adult	Inh	None	Pathway incomplete. COPCs were not identified.	ENSR. 2001
Current/Future	Surface Soil	Surface Soil	Transect 1	Outdoor Worker	Adult	Ing/Derm	None	Pathway incomplete. COPCs were not identified.	ENSR. 2001
Current/Future	Surface Soil	Outdoor Air	Transect 1	Outdoor Worker	Adult	Inh	None	Pathway incomplete. COPCs were not identified.	ENSR. 2001
Current/Future	Subsurface Soil	Outdoor Air	Transect 1	Outdoor Worker	Adult	Inh	None	Pathway incomplete. COPCs were not identified.	ENSR. 2001
Current/Future	Groundwater	Outdoor Air	Transect 1	Outdoor Worker	Adult	Inh	None	Pathway incomplete. COPCs were not identified.	ENSR. 2001
Future	Soil (b)	Soil (b)	Transect 1	Construction Worker	Adult	Ing/Derm	None	Pathway incomplete. COPCs were not identified.	ENSR. 2001
Future	Soil (b)	Excavation Air	Transect 1	Construction Worker	Adult	Inh	None	Pathway incomplete. COPCs were not identified.	ENSR. 2001
Future	Groundwater	Groundwater	Transect 1	Construction Worker	Adult	Ing/Derm	Quant	Pathway potentially complete for lead.	ENSR. 2001
Future	Groundwater	Excavation Air	Transect 1	Construction Worker	Adult	Inh	None	Pathway incomplete. COPCs were not identified.	ENSR. 2001
Current/Future	Surface Soil	Surface Soil	Transect 1	Resident	Adult	Ing/Derm	None	Pathway incomplete. COPCs were not identified.	ENSR. 2001
Current/Future	Surface Soil	Produce	Transect 1	Resident	Adult	Ing/Derm	None	Pathway incomplete. COPCs with plant uptake potential were not identified.	ENSR. 2001
Current/Future	Surface Soil	Outdoor Air	Transect 1	Resident	Adult	Inh	None	Pathway incomplete. COPCs were not identified.	ENSR. 2001
Current/Future	Subsurface Soil	Outdoor Air	Transect 1	Resident	Adult	Inh	None	Pathway incomplete. COPCs were not identified.	ENSR. 2001
Current/Future	Groundwater	Drinking water	Transect 1	Resident	Adult	Ing/Derm	None	Pathway incomplete. GW not used for drinking.	ENSR. 2001
Current/Future	Groundwater	Non-potable use	Transect 1	Resident	Adult	Ing/Derm	Quant	Pathway potentially complete for lead.	ENSR. 2001
Current/Future	Groundwater	Outdoor Air	Transect 1	Resident	Adult	Inh	None	Pathway incomplete. COPCs were not identified.	ENSR. 2001

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Scenario Timeframe	Medium	Exposure Medium	Exposure Point	Receptor Population	Receptor Age	Exposure Route	Type of Analysis	Rationale for Selection or Exclusion of Exposure Pathway	Document
Current/Future	Surface Soil	Surface Soil	Transect 2	Outdoor Worker	Adult	Ing/Derm	None	Pathway incomplete. COPCs were not identified.	ENSR. 2001
Current/Future	Surface Soil	Outdoor Air	Transect 2	Outdoor Worker	Adult	Inh	None	Pathway incomplete. COPCs were not identified.	ENSR. 2001
Current/Future	Subsurface Soil	Outdoor Air	Transect 2	Outdoor Worker	Adult	Inh	None	Pathway incomplete. COPCs were not identified.	ENSR. 2001
Current/Future	Groundwater	Outdoor Air	Transect 2	Outdoor Worker	Adult	Inh	None	Pathway incomplete. COPCs were not identified.	ENSR. 2001
Future	Soil (b)	Soil (b)	Transect 2	Construction Worker	Adult	Ing/Derm	None	Pathway incomplete. COPCs were not identified.	ENSR. 2001
Future	Soil (b)	Excavation Air	Transect 2	Construction Worker	Adult	Inh	None	Pathway incomplete. COPCs were not identified.	ENSR. 2001
Future	Groundwater	Groundwater	Transect 2	Construction Worker	Adult	Ing/Derm	None	Pathway incomplete. COPCs were not identified.	ENSR. 2001
Future	Groundwater	Excavation Air	Transect 2	Construction Worker	Adult	Inh	None	Pathway incomplete. COPCs were not identified.	ENSR. 2001
Current/Future	Surface Soil	Surface Soil	Transect 2	Resident	Adult	Ing/Derm	None	Pathway incomplete. COPCs were not identified.	ENSR. 2001
Current/Future	Surface Soil	Produce	Transect 2	Resident	Adult	Ing/Derm	None	Pathway incomplete. COPCs with plant uptake potential were not identified.	ENSR. 2001
Current/Future	Surface Soil	Outdoor Air	Transect 2	Resident	Adult	Inh	None	Pathway incomplete. COPCs were not identified.	ENSR. 2001
Current/Future	Subsurface Soil	Outdoor Air	Transect 2	Resident	Adult	Inh	None	Pathway incomplete. COPCs were not identified.	ENSR. 2001
Current/Future	Groundwater	Drinking water	Transect 2	Resident	Adult	Ing/Derm	None	Pathway incomplete. GW not used for drinking.	ENSR. 2001
Current/Future	Groundwater	Non-potable use	Transect 2	Resident	Adult	Ing/Derm	None	Pathway incomplete. COPCs were not identified.	ENSR. 2001
Current/Future	Groundwater	Outdoor Air	Transect 2	Resident	Adult	Inh	None	Pathway incomplete. COPCs were not identified.	ENSR. 2001
Current/Future	Surface Soil	Surface Soil	Transect 3	Outdoor Worker	Adult	Ing/Derm	Quant	Pathway potentially complete.	ENSR. 2001
Current/Future	Surface Soil	Outdoor Air	Transect 3	Outdoor Worker	Adult	Inh	Quant	Pathway potentially complete.	ENSR. 2001
Current/Future	Subsurface Soil	Outdoor Air	Transect 3	Outdoor Worker	Adult	Inh	None	Pathway incomplete. COPCs were not identified.	ENSR. 2001
Current/Future	Groundwater	Outdoor Air	Transect 3	Outdoor Worker	Adult	Inh	None	Pathway incomplete. COPCs were not identified.	ENSR. 2001
Future	Soil (b)	Soil (b)	Transect 3	Construction Worker	Adult	Ing/Derm	Quant	Pathway potentially complete.	ENSR. 2001
Future	Soil (b)	Excavation Air	Transect 3	Construction Worker	Adult	Inh	Quant	Pathway potentially complete.	ENSR. 2001
Future	Groundwater	Groundwater	Transect 3	Construction Worker	Adult	Ing/Derm	None	Pathway incomplete. COPCs were not identified.	ENSR. 2001
Future	Groundwater	Excavation Air	Transect 3	Construction Worker	Adult	Inh	None	Pathway incomplete. COPCs were not identified.	ENSR. 2001
Current/Future	Surface Soil	Surface Soil	Transect 3	Resident	Adult	Ing/Derm	Quant	Pathway potentially complete.	ENSR. 2001
Current/Future	Surface Soil	Produce	Transect 3	Resident	Adult	Ing/Derm	None	Pathway incomplete. COPCs with plant uptake potential were not identified.	ENSR. 2001
Current/Future	Surface Soil	Outdoor Air	Transect 3	Resident	Adult	Inh	Quant	Pathway potentially complete.	ENSR. 2001
Current/Future	Subsurface Soil	Outdoor Air	Transect 3	Resident	Adult	Inh	None	Pathway incomplete. COPCs were not identified.	ENSR. 2001
Current/Future	Groundwater	Drinking water	Transect 3	Resident	Adult	Ing/Derm	None	Pathway incomplete. GW not used for drinking.	ENSR. 2001
Current/Future	Groundwater	Non-potable use	Transect 3	Resident	Adult	Ing/Derm	None	Pathway incomplete. COPCs were not identified.	ENSR. 2001
Current/Future	Groundwater	Outdoor Air	Transect 3	Resident	Adult	Inh	None	Pathway incomplete. COPCs were not identified.	ENSR. 2001

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Scenario Timeframe	Medium	Exposure Medium	Exposure Point	Receptor Population	Receptor Age	Exposure Route	Type of Analysis	Rationale for Selection or Exclusion of Exposure Pathway	Document
Current/Future	Surface Soil	Surface Soil	Transect 4	Outdoor Worker	Adult	Ing/Derm	Quant	Pathway potentially complete.	ENSR. 2001
Current/Future	Surface Soil	Outdoor Air	Transect 4	Outdoor Worker	Adult	Inh	Quant	Pathway potentially complete.	ENSR. 2001
Current/Future	Subsurface Soil	Outdoor Air	Transect 4	Outdoor Worker	Adult	Inh	None	Pathway incomplete. Volatile COPCs were not identified.	ENSR. 2001
Current/Future	Groundwater	Outdoor Air	Transect 4	Outdoor Worker	Adult	Inh	None	Pathway incomplete. COPCs were not identified.	ENSR. 2001
Future	Soil (b)	Soil (b)	Transect 4	Construction Worker	Adult	Ing/Derm	Quant	Pathway potentially complete.	ENSR. 2001
Future	Soil (b)	Excavation Air	Transect 4	Construction Worker	Adult	Inh	Quant	Pathway potentially complete.	ENSR. 2001
Future	Groundwater	Groundwater	Transect 4	Construction Worker	Adult	Ing/Derm	None	Pathway incomplete. COPCs were not identified.	ENSR. 2001
Future	Groundwater	Excavation Air	Transect 4	Construction Worker	Adult	Inh	None	Pathway incomplete. COPCs were not identified.	ENSR. 2001
Current/Future	Surface Soil	Surface Soil	Transect 4	Resident	Adult	Ing/Derm	Quant	Pathway potentially complete.	ENSR. 2001
Current/Future	Surface Soil	Produce	Transect 4	Resident	Adult	Ing/Derm	None	Pathway incomplete. COPCs with plant uptake potential were not identified.	ENSR. 2001
Current/Future	Surface Soil	Outdoor Air	Transect 4	Resident	Adult	Inh	Quant	Pathway potentially complete.	ENSR. 2001
Current/Future	Subsurface Soil	Outdoor Air	Transect 4	Resident	Adult	Inh	None	Pathway incomplete. COPCs were not identified.	ENSR. 2001
Current/Future	Groundwater	Drinking water	Transect 4	Resident	Adult	Ing/Derm	None	Pathway incomplete. GW not used for drinking.	ENSR. 2001
Current/Future	Groundwater	Non-potable use	Transect 4	Resident	Adult	Ing/Derm	None	Pathway incomplete. COPCs were not identified.	ENSR. 2001
Current/Future	Groundwater	Outdoor Air	Transect 4	Resident	Adult	Inh	None	Pathway incomplete. COPCs were not identified.	ENSR. 2001
Current/Future	Surface Soil	Surface Soil	Transect 5	Outdoor Worker	Adult	Ing/Derm	None	Pathway incomplete. COPCs were not identified.	ENSR. 2001
Current/Future	Surface Soil	Outdoor Air	Transect 5	Outdoor Worker	Adult	Inh	None	Pathway incomplete. COPCs were not identified.	ENSR. 2001
Current/Future	Subsurface Soil	Outdoor Air	Transect 5	Outdoor Worker	Adult	Inh	None	Pathway incomplete. COPCs were not identified.	ENSR. 2001
Current/Future	Groundwater	Outdoor Air	Transect 5	Outdoor Worker	Adult	Inh	None	Pathway incomplete. COPCs were not identified.	ENSR. 2001
Future	Soil (b)	Soil (b)	Transect 5	Construction Worker	Adult	Ing/Derm	None	Pathway incomplete. COPCs were not identified.	ENSR. 2001
Future	Soil (b)	Excavation Air	Transect 5	Construction Worker	Adult	Inh	None	Pathway incomplete. COPCs were not identified.	ENSR. 2001
Future	Groundwater	Groundwater	Transect 5	Construction Worker	Adult	Ing/Derm	None	Pathway incomplete. COPCs were not identified.	ENSR. 2001
Future	Groundwater	Excavation Air	Transect 5	Construction Worker	Adult	Inh	None	Pathway incomplete. COPCs were not identified.	ENSR. 2001
Current/Future	Surface Soil	Surface Soil	Transect 5	Resident	Adult	Ing/Derm	Quant	Pathway potentially complete.	ENSR. 2001
Current/Future	Surface Soil	Produce	Transect 5	Resident	Adult	Ing/Derm	None	Pathway incomplete. COPCs with plant uptake potential were not identified.	ENSR. 2001
Current/Future	Surface Soil	Outdoor Air	Transect 5	Resident	Adult	Inh	Quant	Pathway potentially complete.	ENSR. 2001
Current/Future	Subsurface Soil	Outdoor Air	Transect 5	Resident	Adult	Inh	None	Pathway incomplete. COPCs were not identified.	ENSR. 2001
Current/Future	Groundwater	Drinking water	Transect 5	Resident	Adult	Ing/Derm	None	Pathway incomplete. GW not used for drinking.	ENSR. 2001
Current/Future	Groundwater	Non-potable use	Transect 5	Resident	Adult	Ing/Derm	None	Pathway incomplete. COPCs were not identified.	ENSR. 2001
Current/Future	Groundwater	Outdoor Air	Transect 5	Resident	Adult	Inh	None	Pathway incomplete. COPCs were not identified.	ENSR. 2001

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Current/Future	Surface Soil	Surface Soil	Transect 6	Outdoor Worker	Adult	Ing/Derm	Quant	Pathway potentially complete.	ENSR. 2001
Current/Future	Surface Soil	Outdoor Air	Transect 6	Outdoor Worker	Adult	Inh	Quant	Pathway potentially complete.	ENSR. 2001
Current/Future	Subsurface Soil	Outdoor Air	Transect 6	Outdoor Worker	Adult	Inh	None	Pathway incomplete. Volatile COPCs were not identified.	ENSR. 2001
Current/Future	Groundwater	Outdoor Air	Transect 6	Outdoor Worker	Adult	Inh	None	Pathway incomplete. COPCs were not identified.	ENSR. 2001
Future	Soil (b)	Soil (b)	Transect 6	Construction Worker	Adult	Ing/Derm	Quant	Pathway potentially complete.	ENSR. 2001
Future	Soil (b)	Excavation Air	Transect 6	Construction Worker	Adult	Inh	Quant	Pathway potentially complete.	ENSR. 2001
Future	Groundwater	Groundwater	Transect 6	Construction Worker	Adult	Ing/Derm	None	Pathway incomplete. COPCs were not identified.	ENSR. 2001
Future	Groundwater	Excavation Air	Transect 6	Construction Worker	Adult	Inh	None	Pathway incomplete. COPCs were not identified.	ENSR. 2001
Current/Future	Surface Soil	Surface Soil	Transect 6	Resident	Adult	Ing/Derm	Quant	Pathway potentially complete.	ENSR. 2001
Current/Future	Surface Soil	Produce	Transect 6	Resident	Adult	Ing/Derm	None	Pathway incomplete. COPCs with plant uptake potential were not identified.	ENSR. 2001
Current/Future	Surface Soil	Outdoor Air	Transect 6	Resident	Adult	Inh	Quant	Pathway potentially complete.	ENSR. 2001
Current/Future	Subsurface Soil	Outdoor Air	Transect 6	Resident	Adult	Inh	None	Pathway incomplete. COPCs were not identified.	ENSR. 2001
Current/Future	Groundwater	Drinking water	Transect 6	Resident	Adult	Ing/Derm	None	Pathway incomplete. GW not used for drinking.	ENSR. 2001
Current/Future	Groundwater	Non-potable use	Transect 6	Resident	Adult	Ing/Derm	None	Pathway incomplete. COPCs were not identified.	ENSR. 2001
Current/Future	Groundwater	Outdoor Air	Transect 6	Resident	Adult	Inh	None	Pathway incomplete. COPCs were not identified.	ENSR. 2001
Current/Future	Surface Soil	Surface Soil	Transect 7	Outdoor Worker	Adult	Ing/Derm	Quant	Pathway potentially complete.	ENSR. 2001
Current/Future	Surface Soil	Outdoor Air	Transect 7	Outdoor Worker	Adult	Inh	Quant	Pathway potentially complete.	ENSR. 2001
Current/Future	Subsurface Soil	Outdoor Air	Transect 7	Outdoor Worker	Adult	Inh	None	Pathway incomplete. COPCs were not identified.	ENSR. 2001
Current/Future	Groundwater	Outdoor Air	Transect 7	Outdoor Worker	Adult	Inh	None	Pathway incomplete. COPCs were not identified.	ENSR. 2001
Future	Soil (b)	Soil (b)	Transect 7	Construction Worker	Adult	Ing/Derm	Quant	Pathway potentially complete.	ENSR. 2001
Future	Soil (b)	Excavation Air	Transect 7	Construction Worker	Adult	Inh	Quant	Pathway potentially complete.	ENSR. 2001
Future	Groundwater	Groundwater	Transect 7	Construction Worker	Adult	Ing/Derm	None	Pathway incomplete. COPCs were not identified.	ENSR. 2001
Future	Groundwater	Excavation Air	Transect 7	Construction Worker	Adult	Inh	None	Pathway incomplete. COPCs were not identified.	ENSR. 2001
Current/Future	Surface Soil	Surface Soil	Transect 7	Resident	Adult	Ing/Derm	Quant	Pathway potentially complete.	ENSR. 2001
Current/Future	Surface Soil	Produce	Transect 7	Resident	Adult	Ing/Derm	Quant	Pathway potentially complete.	ENSR. 2001
Current/Future	Surface Soil	Outdoor Air	Transect 7	Resident	Adult	Inh	Quant	Pathway potentially complete.	ENSR. 2001
Current/Future	Subsurface Soil	Outdoor Air	Transect 7	Resident	Adult	Inh	None	Pathway incomplete. COPCs were not identified.	ENSR. 2001
Current/Future	Groundwater	Drinking water	Transect 7	Resident	Adult	Ing/Derm	None	Pathway incomplete. GW not used for drinking.	ENSR. 2001
Current/Future	Groundwater	Non-potable use	Transect 7	Resident	Adult	Ing/Derm	None	Pathway incomplete. COPCs were not identified.	ENSR. 2001
Current/Future	Groundwater	Outdoor Air	Transect 7	Resident	Adult	Inh	None	Pathway incomplete. COPCs were not identified.	ENSR. 2001
Current/Future	CBS	CBS	CS- B	Recreational Child	0-6 yrs	Ing/Derm	Quant	Pathway potentially complete.	ENSR. 2006
Current/Future	CBS	CBS	CS- B	Recreational Teen	7-18 yrs	Ing/Derm	Quant	Pathway potentially complete.	ENSR. 2006
Current/Future	CBS	CBS	CS- B	Construction Worker	Adult	Ing/Derm	Quant	Pathway potentially complete.	ENSR. 2006
Current/Future	CBS	CBS	CS- C	Recreational Child	0-6 yrs	Ing/Derm	None	Pathway incomplete. COPCs were not identified.	ENSR. 2006
Current/Future	CBS	CBS	CS- C	Recreational Teen	7-18 yrs	Ing/Derm	None	Pathway incomplete. COPCs were not identified.	ENSR. 2006
Current/Future	CBS	CBS	CS- C	Construction Worker	Adult	Ing/Derm	None	Pathway incomplete. COPCs were not identified.	ENSR. 2006
Current/Future	CBS	CBS	CS- D	Recreational Child	0-6 yrs	Ing/Derm	Quant	Pathway potentially complete.	ENSR. 2006
Current/Future	CBS	CBS	CS- D	Recreational Teen	7-18 yrs	Ing/Derm	Quant	Pathway potentially complete.	ENSR. 2006
Current/Future	CBS	CBS	CS- D	Construction Worker	Adult	Ing/Derm	Quant	Pathway potentially complete.	ENSR. 2006

TABLE 8-1
SELECTION OF EXPOSURE PATHWAYS
SAUGET AREA 1

Scenario Timeframe	Medium	Exposure Medium	Exposure Point	Receptor Population	Receptor Age	Exposure Route	Type of Analysis	Rationale for Selection or Exclusion of Exposure Pathway	Document
Current/Future	CBS	CBS	CS- E	Recreational Child	0-6 yrs	Ing/Derm	Quant	Pathway potentially complete.	ENSR. 2006
Current/Future	CBS	CBS	CS- E	Recreational Teen	7-18 yrs	Ing/Derm	Quant	Pathway potentially complete.	ENSR. 2006
Current/Future	CBS	CBS	CS- E	Construction Worker	Adult	Ing/Derm	Quant	Pathway potentially complete.	ENSR. 2006
Current/Future	CBS	CBS	CS- F (a)	Recreational Child	0-6 yrs	Ing/Derm	Quant	Pathway potentially complete.	ENSR. 2006
Current/Future	CBS	CBS	CS- F (a)	Recreational Teen	7-18 yrs	Ing/Derm	Quant	Pathway potentially complete.	ENSR. 2006
Current/Future	CBS	CBS	CS- F (a)	Construction Worker	Adult	Ing/Derm	Quant	Pathway potentially complete.	ENSR. 2006
Current/Future	Fish	Fish	BPL/CS- F (a)	Recreational Fisher	Adult	Ing	Quant	Pathway potentially complete.	ENSR. 2001
Current/Future	Sediment	Sediment	BPL/CS- F (a)	Recreational Fisher	Adult	Ing/Derm	Quant	Pathway potentially complete.	ENSR. 2001
Current/Future	Surface Water	Surface Water	BPL/CS- F (a)	Recreational Fisher	Adult	Ing/Derm	None	Pathway incomplete. COPCs were not identified.	ENSR. 2001
Current/Future	Sediment	Sediment	BPL/CS- F (a)	Recreational Teen	7-18 yrs	Ing/Derm	Quant	Pathway potentially complete.	ENSR. 2001
Current/Future	Surface Water	Surface Water	BPL/CS- F (a)	Recreational Teen	7-18 yrs	Ing/Derm	None	Pathway incomplete. COPCs were not identified.	ENSR. 2001

Notes:

BPL - Borrow Pit Lake.

AECOM. 2009a. Sauget Area 1 EE/CA and RI/FS Addendum – Vapor Intrusion Human Health Risk Assessment Technical Memorandum – Tier 2 Evaluation. September 2009. USEPA Approved (September 30, 2009).

ENSR. 2001. Sauget Area 1 Human Health Risk Assessment. Sauget and Cahokia, Illinois. June 1, 2001 Revision 1 and August 31, 2001 Revision 2. USEPA Approved (November 13, 2001).

ENSR. 2006 Sauget Area 1 Dead Creek Final Remedy. Creek Bottom Soil Engineering Evaluation/Cost Analysis. Human Health Risk Assessment. April 2006

ENSR. 2008. Sauget Area 1 Utility Corridor Evaluation Human Health Risk Assessment. August 2008. USEPA Approved (September 10, 2008).

Ing/Derm - Incidental Ingestion and Dermal Contact.

Inh - Inhalation.

Quant - Quantitative.

(a) - Areas of Creek Segment F not subject to the sediment removal action were included in ENSR, 2001, and areas subject to the removal action were included in ENSR, 2006

(b) - Constituents of potential concern were identified in subsurface soil only in Transects 4 and 6; for these transects, the higher of the surface soil and the subsurface soil exposure point concentration was used to evaluate potential construction worker exposure. For the remaining transects, the surface soil exposure point concentration was used.

TABLE 8-2
SUMMARY OF POTENTIAL RISKS FOR ALL RECEPTORS - SITES
SAUGET AREA 1

Medium (Pathways)	Sites										Document
	G		H		I		L		N		
	RME	MLE	RME	MLE	RME	MLE	RME	MLE	RME	MLE	
Indoor Industrial Worker											
Soil Gas to Indoor Air (inh) (a)	4.60E-05	Wiese Blg	NA	NA	1.30E-07 6.41E-08 1.12E-08	Cerro Guard House Cerro Control Center Sauget Village Hall	NA	NA	NA	NA	AECOM. 2009a
Outdoor Industrial Worker											
Surface Soil (ing/derm)	--	--	1.89E-05	1.35E-06	1.65E-04	8.15E-06	5.02E-06	5.07E-07	--	--	ENSR. 2001
Surface Soil to Outdoor Air (inh)	--	--	4.99E-08	3.19E-09	1.15E-07	5.57E-09	1.67E-08	2.56E-09	--	--	ENSR. 2001
Groundwater to Outdoor Air (inh)	5.32E-08	1.05E-09	8.50E-08	2.13E-09	1.25E-06	6.93E-09	2.79E-09	1.50E-10	--	--	ENSR. 2001
Total Potential Risk:	**5.32E-08**	**1.05E-09**	**1.90E-05**	**1.35E-06**	**1.66E-04**	**8.16E-06**	**5.04E-06**	**5.10E-07**	**--**	**--**	ENSR. 2001
Construction Worker											
Surface Soil (ing/derm)	--	--	4.30E-07	6.57E-08	3.89E-06	4.14E-07	9.97E-08	1.90E-08	--	--	ENSR. 2001
Surface Soil to Outdoor Air (inh)	--	--	3.11E-08	3.41E-09	5.50E-08	4.55E-09	1.56E-08	4.10E-09	--	--	ENSR. 2001
Subsurface Soil (ing/derm)	2.30E-05	1.77E-06	9.15E-05	5.40E-06	7.98E-06	1.11E-06	2.62E-06	4.78E-07	--	--	ENSR. 2001
Subsurface Soil to Outdoor Air (inh)	2.40E-07	1.51E-08	1.06E-06	5.94E-08	4.40E-07	1.15E-07	9.63E-08	1.07E-08	--	--	ENSR. 2001
Groundwater (ing/derm)	9.90E-06	4.71E-06	2.71E-06	1.12E-06	4.84E-06	2.39E-06	2.00E-07	1.00E-07	--	--	ENSR. 2001
Groundwater to Outdoor Air (inh)	2.19E-07	6.57E-08	3.35E-07	1.00E-07	1.32E-07	3.16E-08	5.36E-08	1.61E-08	--	--	ENSR. 2001
Leachate (ing/derm)	1.18E-05	5.89E-06	8.83E-07	2.03E-07	1.50E-05	7.47E-06	2.84E-07	1.07E-07	--	--	ENSR. 2001
Leachate to Outdoor Air (inh)	2.41E-07	7.20E-08	2.34E-07	1.48E-08	3.26E-06	4.88E-07	1.55E-09	2.25E-10	--	--	ENSR. 2001
Total Potential Risk:	**4.54E-05**	**1.25E-05**	**9.72E-05**	**6.97E-06**	**3.56E-05**	**1.20E-05**	**3.37E-06**	**7.34E-07**	**--**	**--**	ENSR. 2001
Trespassing Teenager											
Surface Soil (ing/derm)	--	--	3.24E-06	3.41E-07	2.81E-05	2.05E-06	8.81E-07	1.33E-07	--	--	ENSR. 2001
Surface Soil to Outdoor Air (inh)	--	--	8.38E-10	1.28E-10	1.94E-09	2.23E-10	2.82E-10	1.02E-10	--	--	ENSR. 2001
Groundwater to Outdoor Air (inh)	8.94E-10	4.20E-11	1.43E-09	8.51E-11	2.10E-08	2.78E-10	4.69E-11	5.99E-12	--	--	ENSR. 2001
Total Potential Risk:	**8.94E-10**	**4.20E-11**	**3.24E-06**	**3.42E-07**	**2.81E-05**	**2.05E-06**	**8.81E-07**	**1.33E-07**	**--**	**--**	ENSR. 2001
Resident											
Surface Soil (ing/derm)	NA	NA	NA	NA	NA	NA	NA	NA	1.30E-06	9.27E-08	ENSR. 2001
Surface Soil to Outdoor Air (inh)	NA	NA	NA	NA	NA	NA	NA	NA	7.15E-11	2.60E-12	ENSR. 2001
Produce (ing)	NA	NA	NA	NA	NA	NA	NA	NA	--	--	ENSR. 2001
Total Potential Risk:	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**1.30E-06**	**9.27E-08**	ENSR. 2001
Utility Worker											ENSR. 2008
Soil/Waste (ing/derm)	NA	NA	1.57E-02	4.56E-04	1.56E-05	4.52E-07	NA	NA	NA	NA	ENSR. 2008
Soil/Waste to Outdoor Air (inh)	NA	NA	5.83E-05	4.90E-06	5.45E-08	4.58E-09	NA	NA	NA	NA	ENSR. 2008
Total Potential Risk:	**NA**	**NA**	**1.58E-02**	**4.61E-04**	**1.57E-05**	**4.56E-07**	**NA**	**NA**	**NA**	**NA**	ENSR. 2008

See notes on following page.

TABLE 8-2
SUMMARY OF POTENTIAL RISKS FOR ALL RECEPTORS - SITES
SAUGET AREA 1

Notes:
Potential risks for Site M are presented on Table 8-6 along with Borrow Pit Lake and Dead Creek.
-- No constituents of potential concern were identified for this pathway.
derm - dermal contact.
AECOM. 2009a. Sauget Area 1 EE/CA and RI/FS Addendum – Vapor Intrusion Human Health Risk Assessment Technical Memorandum – Tier 2 Evaluation. September 2009. USEPA Approved (September 30, 2009).
ENSR. 2001. Sauget Area 1 Human Health Risk Assessment. Sauget and Cahokia, Illinois. June 1, 2001 Revision 1 and August 31, 2001 Revision 2. USEPA Approved (November 13, 2001).
ENSR. 2008. Sauget Area 1 Utility Corridor Evaluation Human Health Risk Assessment. August 2008. USEPA Approved (September 10, 2008).
ing - ingestion.
inh - inhalation.
MLE - Most Likely Exposure.
NA - Not Applicable. Pathway not identified as a pathway of potential concern.
RME - Reasonable Maximum Exposure.
Highlighted results exceed the target risk range of 1E-6 to 1E-4.
(a) - MLE scenario was not evaluated in ENSR, 2008a.

TABLE 8-3
SUMMARY OF POTENTIAL HAZARD INDICES FOR ALL RECEPTORS
SAUGET AREA 1

Medium (Pathways)	Sites										Document
	G		H		I		L		N		
	RME	MLE	RME	MLE	RME	MLE	RME	MLE	RME	MLE	
Indoor Industrial Worker											
Soil Gas to Indoor Air (inh) (a)	1.13E+00 (a)	Wiese Blg	NA	NA	3.69E-03 5.93E-04 4.79E-04	Cerro Guard House Cerro Control Center Sauget Village Hall	NA	NA	NA	NA	ENSR. 2008a
Outdoor Industrial Worker											
Surface Soil (ing/derm)	--	--	4.89E-02	1.19E-02	2.12E+00	3.61E-01	3.14E-02	1.25E-02	--	--	ENSR. 2001
Surface Soil to Outdoor Air (inh)	--	--	NC	NC	NC	NC	NC	NC	--	--	ENSR. 2001
Groundwater to Outdoor Air (inh)	1.06E-02	5.99E-04	3.97E-02	3.10E-03	2.79E-02	7.26E-04	1.61E-03	3.08E-04	--	--	ENSR. 2001
Total Potential Hazard Index:	**1.06E-02**	**5.99E-04**	**8.85E-02**	**1.50E-02**	**2.15E+00**	**3.62E-01**	**3.30E-02**	**1.28E-02**	**--**	**--**	ENSR. 2001
Construction Worker											
Surface Soil (ing/derm)	--	--	2.31E-02	3.21E-03	1.08E+00	1.05E-01	1.50E-02	3.23E-03	--	--	ENSR. 2001
Surface Soil to Outdoor Air (inh)	--	--	NC	NC	NC	NC	NC	NC	--	--	ENSR. 2001
Subsurface Soil (ing/derm)	4.48E+01	4.16E+00	1.54E+02	8.46E+00	6.29E+00	9.71E-01	4.27E+00	7.96E-01			ENSR. 2001
Subsurface Soil to Outdoor Air (inh)	5.50E-01	1.98E-02	4.87E+00	1.70E-01	5.03E-01	1.51E-01	4.57E-04	4.57E-05			ENSR. 2001
Groundwater (ing/derm)	9.06E-02	4.06E-02	9.37E-02	4.23E-02	8.60E-02	3.92E-02	9.94E-02	4.97E-02	--	--	ENSR. 2001
Groundwater to Outdoor Air (inh)	2.40E+00	7.19E-01	4.43E+00	1.33E+00	8.66E-01	1.99E-01	7.80E-01	2.34E-01	--	--	ENSR. 2001
Leachate (ing/derm)	6.13E-01	2.79E-01	2.47E+00	2.59E-01	6.51E+00	3.21E+00	4.38E-02	1.24E-02	--	--	ENSR. 2001
Leachate to Outdoor Air (inh)	1.75E+00	5.25E-01	1.62E+00	1.13E-01	3.28E+01	3.08E+00	4.77E-04	6.91E-05	--	--	ENSR. 2001
Total Potential Hazard Index:	**5.02E+01**	**5.74E+00**	**1.67E+02**	**1.04E+01**	**4.81E+01**	**7.76E+00**	**5.21E+00**	**1.10E+00 (b)**	**--**	**--**	ENSR. 2001
Trespassing Teenager											
Surface Soil (ing/derm)	--	--	1.96E-02	1.98E-03	8.43E-01	5.95E-02	1.26E-02	2.09E-03	--	--	ENSR. 2001
Surface Soil to Outdoor Air (inh)	--	--	NC	NC	NC	NC	NC	NC	--	--	ENSR. 2001
Groundwater to Outdoor Air (inh)	4.05E-04	1.53E-05	1.52E-03	7.90E-05	1.07E-03	1.85E-05	6.14E-05	7.85E-06	--	--	ENSR. 2001
Total Potential Hazard Index:	**4.05E-04**	**1.53E-05**	**2.11E-02**	**2.06E-03**	**8.44E-01**	**5.96E-02**	**1.27E-02**	**2.10E-03**	**--**	**--**	ENSR. 2001
Resident											
Surface Soil (ing/derm)	NA	NA	NA	NA	NA	NA	NA	NA	NC	NC	ENSR. 2001
Surface Soil to Outdoor Air (inh)	NA	NA	NA	NA	NA	NA	NA	NA	NC	NC	ENSR. 2001
Produce (ing)	NA	NA	NA	NA	NA	NA	NA	NA	--	--	ENSR. 2001
Total Potential Hazard Index:	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NC**	**NC**	ENSR. 2001
Utility Worker											ENSR. 2008
Soil/Waste (ing/derm)	NA	NA	6.25E+02	6.53E+01	6.23E-01	6.51E-02	NA	NA	NA	NA	ENSR. 2008
Soil/Waste to Outdoor Air (inh)	NA	NA	3.10E+00	9.31E-01	2.63E-06	7.89E-07	NA	NA	NA	NA	ENSR. 2008
Total Potential Hazard Index:	**NA**	**NA**	**6.28E+02**	**6.63E+01**	**6.23E-01**	**6.51E-02**	**NA**	**NA**	**NA**	**NA**	ENSR. 2008

See notes on following page.

TABLE 8-3
SUMMARY OF POTENTIAL HAZARD INDICES FOR ALL RECEPTORS
SAUGET AREA 1

Notes:
Potential hazard indices for Site M are presented on Table 8-7 along with Borrow Pit Lake and Dead Creek.
-- No constituents of potential concern were identified for this pathway.
derm - dermal contact.
ing - ingestion.
inh - inhalation.
AECOM. 2009a. Sauget Area 1 EE/CA and RI/FS Addendum – Vapor Intrusion Human Health Risk Assessment Technical Memorandum – Tier 2 Evaluation. September 2009. USEPA Approved (September 30, 2009).
ENSR. 2001. Sauget Area 1 Human Health Risk Assessment. Sauget and Cahokia, Illinois. June 1, 2001 Revision 1 and August 31, 2001 Revision 2. USEPA Approved (November 13, 2001).
ENSR. 2008. Sauget Area 1 Utility Corridor Evaluation Human Health Risk Assessment. August 2008. USEPA Approved (September 10, 2008).
MLE - Most Likely Exposure.
NA - Not Applicable. Pathway not identified as a pathway of potential concern.
NC - Not Calculated. No appropriate dose-response values for constituents for this pathway.
RME - Reasonable Maximum Exposure.
Highlighted results exceed the target hazard index of one on a target endpoint basis.
(a) - MLE scenario was not evaluated in ENSR, 2008.
(b) - No HI exceedence based on a toxic endpoint analysis.

TABLE 8-4
SUMMARY OF POTENTIAL RISKS FOR ALL RECEPTORS - TRANSECTS
SAUGET AREA 1

Medium (Pathways)	Residential Transects												Document
	1		3		4		5		6		7		
	RME	MLE	RME	MLE	RME	MLE	RME	MLE	RME	MLE	RME	MLE	
Outdoor Industrial Worker													
Surface Soil (ing/derm)	--	--	7.98E-08	7.46E-09	1.15E-06	3.92E-08	--	--	1.11E-06	2.75E-08	1.54E-06	1.21E-07	ENSR. 2001
Surface Soil to Outdoor Air (inh)	--	--	2.32E-11	2.13E-12	3.32E-10	1.12E-11	--	--	3.21E-10	7.85E-12	6.64E-09	7.59E-10	ENSR. 2001
Groundwater to Outdoor Air (inh)	--	--	--	--	--	--	--	--	--	--	--	--	ENSR. 2001
Total Potential Risk:	**--**	**--**	**7.98E-08**	**7.47E-09**	**1.15E-06**	**3.92E-08**	**--**	**--**	**1.11E-06**	**2.75E-08**	**1.55E-06**	**1.22E-07**	ENSR. 2001
Construction Worker													
Soil (ing/derm) (a)	--	--	1.77E-09	3.49E-10	3.36E-08	2.76E-09	--	--	2.45E-08	1.29E-09	2.97E-08	4.28E-09	ENSR. 2001
Soil to Outdoor Air (inh) (a)	--	--	2.16E-11	3.42E-12	4.11E-10	2.70E-11	--	--	3.00E-10	1.26E-11	6.21E-09	1.22E-09	ENSR. 2001
Groundwater (ing/derm)	(b)	(b)	--	--	--	--	--	--	--	--	--	--	ENSR. 2001
Groundwater to Outdoor Air (inh)	--	--	--	--	--	--	--	--	--	--	--	--	ENSR. 2001
Total Potential Risk:	**--**	**--**	**1.79E-09**	**3.53E-10**	**3.40E-08**	**2.79E-09**	**--**	**--**	**2.48E-08**	**1.30E-09**	**3.59E-08**	**5.49E-09**	ENSR. 2001
Resident													
Surface Soil (ing/derm)	--	--	1.18E-06	7.96E-08	1.34E-05	3.16E-07	3.52E-06	1.18E-07	1.43E-05	2.74E-07	1.63E-05	7.89E-07	ENSR. 2001
Surface Soil to Outdoor Air (inh)	--	--	4.34E-11	1.49E-12	4.92E-10	5.93E-12	1.14E-10	2.13E-12	5.26E-10	5.14E-12	8.16E-09	3.27E-10	ENSR. 2001
Produce (ing)	--	--	--	--	--	--	--	--	--	--	5.33E-05	2.87E-06	ENSR. 2001
Groundwater (ing/derm, non-potable)	(b)	(b)	--	--	--	--	--	--	--	--	--	--	ENSR. 2001
Total Potential Risk:			**1.18E-06**	**7.96E-08**	**1.34E-05**	**3.16E-07**	**3.52E-06**	**1.18E-07**	**1.43E-05**	**2.74E-07**	**6.96E-05**	**3.65E-06**	ENSR. 2001

Notes:
-- No constituents of potential concern were identified for this pathway.
derm - dermal contact.
ENSR. 2001. Sauget Area 1 Human Health Risk Assessment. Sauget and Cahokia, Illinois. June 1, 2001 Revision 1 and August 31, 2001 Revision 2. USEPA Approved (November 13, 2001).
ing - ingestion.
inh - inhalation.
MLE - Most Likely Exposure.
NA - Not Applicable. Pathway not identified as a pathway of potential concern.
RME - Reasonable Maximum Exposure.
(a) - Constituents of potential concern were identified in subsurface soil only in Transects 4 and 6; for these transects, the higher of the surface soil and the subsurface soil exposure point concentration was used to evaluate potential construction worker exposure. For the remaining transects, the surface soil exposure point concentration was used.
(b) - Lead was the only constituent of potential concern identified for groundwater in Transect 1. As indicated in Appendix Q of ENSR, 2001, no adverse health effects are expected.

TABLE 8-5
SUMMARY OF POTENTIAL HAZARD INDICES FOR ALL RECEPTORS - TRANSECTS
SAUGET AREA 1

			Residential Transects										
	1		3		4		5		6		7		
Medium (Pathways)	**RME**	**MLE**	**RME**	**MLE**	**RME**	**MLE**	**RME**	**MLE**	**RME**	**MLE**	**RME**	**MLE**	**Document**
Outdoor Industrial Worker													
Surface Soil (ing/derm)	--	--	NC	NC	NC	NC	--	--	NC	NC	5.59E-03	2.25E-03	ENSR. 2001
Surface Soil to Outdoor Air (inh)	--	--	NC	NC	NC	NC	--	--	NC	NC	NC	NC	ENSR. 2001
Groundwater to Outdoor Air (inh)	--	--	--	--	--	--	--	--	--	--	--	--	ENSR. 2001
Total Potential Hazard Index:	**--**	**--**	**NC**	**NC**	**NC**	**NC**	**--**	**--**	**NC**	**NC**	**5.59E-03**	**2.25E-03**	ENSR. 2001
Construction Worker													
Soil (ing/derm) (a)	--	--	NC	NC	NC	NC	--	--	NC	NC	2.39E-03	5.17E-04	ENSR. 2001
Soil to Outdoor Air (inh) (a)	--	--	NC	NC	NC	NC	--	--	NC	NC	NC	NC	ENSR. 2001
Groundwater (ing/derm)	(b)	(b)	--	--	--	--	--	--	--	--	--	--	ENSR. 2001
Groundwater to Outdoor Air (inh)	--	--	--	--	--	--	--	--	--	--	--	--	ENSR. 2001
Total Potential Hazard Index:	**--**	**--**	**NC**	**NC**	**NC**	**NC**	**--**	**--**	**NC**	**NC**	**2.39E-03**	**5.17E-04**	ENSR. 2001
Resident													
Surface Soil (ing/derm)	--	--	NC	NC	NC	NC	1.96E-02	1.04E-03	NC	NC	1.46E-01	3.26E-02	ENSR. 2001
Surface Soil to Outdoor Air (inh)	--	--	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	ENSR. 2001
Produce (ing)	--	--	--	--	--	--	--	--	--	--	5.13E-02	9.12E-03	ENSR. 2001
Groundwater (ing/derm, non-potable)	(b)	(b)											
Total Potential Hazard Index:			**NC**	**NC**	**NC**	**NC**	**1.96E-02**	**1.04E-03**	**NC**	**NC**	**1.97E-01**	**4.17E-02**	ENSR. 2001

Notes:
-- No constituents of potential concern were identified for this pathway.
derm - dermal contact.
ENSR. 2001. Sauget Area 1 Human Health Risk Assessment. Sauget and Cahokia, Illinois. June 1, 2001 Revision 1 and August 31, 2001 Revision 2. USEPA Approved (November 13, 2001).
ing - ingestion.
inh - inhalation.
MLE - Most Likely Exposure.
NA - Not Applicable. Pathway not identified as a pathway of potential concern.
NC - Not Calculated. No appropriate dose-response values for constituents for this pathway.
RME - Reasonable Maximum Exposure.
(a) - Constituents of potential concern were identified in subsurface soil only in Transects 4 and 6; for these transects, the higher of the surface soil and the subsurface soil exposure point concentration was used to evaluate potential construction worker exposure. For the remaining transects, the surface soil exposure point concentration was used.
(b) - Lead was the only constituent of potential concern identified for groundwater in Transect 1. As indicated in Appendix Q of ENSR, 2001, no adverse health effects are expected.

TABLE 8-6
SUMMARY OF POTENTIAL RISKS FOR ALL RECEPTORS - DEAD CREEK, BORROW PIT LAKE, AND SITE M
SAUGET AREA 1

Medium (Pathways)	Dead Creek Segment F (a) and Borrow Pit Lake ENSR. 2001 RME	Dead Creek Segment F (a) and Borrow Pit Lake ENSR. 2001 MLE	Dead Creek Segment B ENSR. 2006 RME	Dead Creek Segment B ENSR. 2006 MLE	Dead Creek Segment C ENSR. 2006 RME	Dead Creek Segment C ENSR. 2006 MLE	Dead Creek Segment D ENSR. 2006 RME	Dead Creek Segment D ENSR. 2006 MLE	Dead Creek Segment E ENSR. 2006 RME	Dead Creek Segment E ENSR. 2006 MLE	Dead Creek Segment F (a) ENSR. 2006 RME	Dead Creek Segment F (a) ENSR. 2006 MLE	Site M ENSR. 2006 RME	Site M ENSR. 2006 MLE
Recreational Child														
Creek Bottom Soils	(b)	(b)	1.77E-05	7.22E-07	--	--	2.34E-06	1.88E-07	6.70E-07	1.00E-07	5.69E-07	1.03E-07	NA	NA
Recreational Teen														
Sediment/Creek Bottom Soils	4.53E-07	8.51E-08	7.70E-06	2.36E-07	--	--	1.10E-06	6.33E-08	3.31E-07	3.44E-08	2.66E-07	3.47E-08	7.77E-06	6.14E-07
Recreational Fisher														
Sediment (ing/derm)	5.83E-07	9.22E-09	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fish Tissue (ing)	3.31E-05	1.24E-06	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Potential Risk:	**3.36E-05**	**1.25E-06**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Construction Worker														
Creek Bottom Soils	(b)	(b)	1.55E-06	3.10E-08	--	--	2.02E-07	8.45E-09	5.74E-08	4.65E-09	4.91E-08	4.63E-09	1.61E-06	7.97E-08

Notes:
-- No constituents of potential concern were identified for this pathway.
derm - dermal contact.
ENSR. 2001. Sauget Area 1 Human Health Risk Assessment. Sauget and Cahokia, Illinois. June 1, 2001 Revision 1 and August 31, 2001 Revision 2. USEPA Approved (November 13, 2001).
ENSR. 2006. Sauget Area 1 Dead Creek Final Remedy. Creek Bottom Soil Engineering Evaluation/Cost Analysis. Human Health Risk Assessment. April 2006.
ing - ingestion.
inh - inhalation.
MLE - Most Likely Exposure.
NA - Not Applicable. Pathway not identified as a pathway of potential concern.
RME - Reasonable Maximum Exposure.
(a) - Areas of Creek Segment F not subject to the sediment removal action were included in ENSR, 2001, and areas subject to the removal action were included in ENSR, 2006.
(b) - Creek bottom soils scenarios were evaluated in ENSR, 2006 and do not apply to the portion of Creek Segment F and Borrow Pit Lake evalauted in ENSR, 2001.

TABLE 8-7
SUMMARY OF POTENTIAL HAZARD INDICES FOR ALL RECEPTORS - DEAD CREEK, BORROW PIT LAKE, AND SITE M
SAUGET AREA 1

Medium (Pathways)	Dead Creek Segment F (a) and Borrow Pit Lake		Dead Creek Segment B		Dead Creek Segment C		Dead Creek Segment D		Dead Creek Segment E		Dead Creek Segment F (a)		Site M	
	ENSR. 2001		ENSR. 2006		ENSR. 2006		ENSR. 2006		ENSR. 2006		ENSR. 2006		ENSR. 2006	
	RME	MLE	RME	MLE	RME	MLE	RME	MLE	RME	MLE	RME	MLE	RME	MLE
Recreational Child														
Creek Bottom Soils	(b)	(b)	2.32E+00 (c)	8.01E-02	--	--	1.63E-01	9.44E-03	1.29E-01	1.01E-02	1.38E-02	2.56E-03	NA	NA
Recreational Teen														
Sediment/Creek Bottom Soils	2.75E-02	3.76E-03	6.13E-01	1.52E-02	--	--	4.53E-02	1.78E-03	5.04E-02	2.39E-03	3.41E-03	4.64E-04	6.21E-01	3.93E-02
Recreational Fisher														
Sediment (ing/derm)	1.58E-02	6.36E-04	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fish Tissue (ing)	1.71E-01	2.14E-02	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Potential Hazard Index	**1.87E-01**	**2.21E-02**	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Construction Worker														
Creek Bottom Soils	(b)	(b)	1.20E+00 (d)	2.28E-02	--	--	8.34E-02	2.66E-03	6.20E-02	4.02E-03	7.20E-03	6.75E-04	1.16E+01 (d)	5.88E-02

Notes:
-- No constituents of potential concern were identified for this pathway.
derm - dermal contact.
ENSR. 2001. Sauget Area 1 Human Health Risk Assessment. Sauget and Cahokia, Illinois. June 1, 2001 Revision 1 and August 31, 2001 Revision 2. USEPA Approved (November 13, 2001).
ENSR. 2006. Sauget Area 1 Dead Creek Final Remedy. Creek Bottom Soil Engineering Evaluation/Cost Analysis. Human Health Risk Assessment. April 2006.
ing - ingestion.
inh - inhalation.
MLE - Most Likely Exposure.
NA - Not Applicable. Pathway not identified as a pathway of potential concern.
RME - Reasonable Maximum Exposure.
(a) - Areas of Creek Segment F not subject to the sediment removal action were included in ENSR, 2001, and areas subject to the removal action were included in ENSR, 2006.
(b) - Creek bottom soils scenarios were evaluated in ENSR, 2006 and do not apply to the portion of Creek Segment F and Borrow Pit Lake evalauted in ENSR, 2001.
(c) - Based on target endpoint analysis and evaluation of HI using post-excavation data, hazard index is below one. See text for additional details.
(d) - Based on target endpoint analysis, hazard index is below one.

TABLE 8-8
SUMMARY OF CONSTITUENTS OF CONCERN
SAUGET AREA 1

Area	Receptor	Medium	Pathway	COC	Cancer Potential Risk		Non-Cancer Hazard		Remedial Goal Options	Units	Document
					RME	MLE	RME HQ	MLE HQ			
Site G	Construction worker	Groundwater	inhalation	Benzene	1.78E-07	5.33E-08	9.50E-01	2.85E-01	(a)	--	ENSR. 2001
Site G	Construction worker	Leachate	inhalation	Benzene	8.21E-08	2.46E-08	4.39E-01	1.32E-01	(a)	--	ENSR. 2001
Site G	Construction worker	Leachate	inhalation	Chlorobenzene	NC	NC	3.83E-01	1.15E-01	(a)	--	ENSR. 2001
Site G	Construction worker	Groundwater	inhalation	Naphthalene	NC	NC	9.93E-01	2.98E-01	(a)	--	ENSR. 2001
Site G	Construction worker	Leachate	inhalation	Naphthalene	NC	NC	7.98E-01	2.39E-01	(a)	--	ENSR. 2001
Site G	Construction worker	Subsurface Soil	ing/derm	Phosphorus	NC	NC	7.07E+00	1.36E+00	(a)	--	ENSR. 2001
Site G	Construction worker	Subsurface Soil	ing/derm	Total PCBs	2.15E-05	1.59E-06	3.76E+01	2.79E+00	(a)	--	ENSR. 2001
Site H	Utility Worker	Soil/Waste	ing/derm/inh	2,3,7,8-TCDD TEQ	8.55E-03	2.46E-04	1.59E+02	1.62E+01	6.38E-04	mg/kg	ENSR. 2008
Site H	Utility Worker	Soil/Waste	ing/derm	4,4-DDD	5.28E-05	5.28E-05	1.23E+00	1.23E-01	1.80E+02	mg/kg	ENSR. 2008
Site H	Utility Worker	Soil/Waste	ing/derm/inh	4,4-DDT	6.07E-05	1.71E-06	9.96E-01	9.96E-02	1.71E+02	mg/kg	ENSR. 2008
Site H	Utility Worker	Soil/Waste	inhalation	Barium	NC	NC	1.08E+00	3.24E-01	7.60E+04	mg/kg	ENSR. 2008
Site H	Utility Worker	Soil/Waste	inhalation	Chlorobenzene	NC	NC	1.77E+00	5.31E-01	8.25E+02	mg/kg	ENSR. 2008
Site H	Utility Worker	Soil/Waste	ing/derm/inh	Dieldrin	4.99E-04	1.45E-05	1.74E+00	1.81E-01	2.43E+00	mg/kg	ENSR. 2008
Site H	Utility Worker	Soil/Waste	ing/derm/inh	Total PCBs	6.61E-03	1.96E-04	4.62E+02	4.87E+01	1.34E+01	mg/kg	ENSR. 2008
Site H	Construction worker	Groundwater	inhalation	Benzene	1.75E-07	5.25E-08	9.35E-01	2.81E-01	(a)	--	ENSR. 2001
Site H	Construction worker	Leachate	inhalation	Benzene	2.33E-07	1.46E-08	1.25E+00	7.83E-02	(a)	--	ENSR. 2001
Site H	Construction worker	Leachate	ing/derm	Cadmium	NC	NC	2.39E+00	2.45E-01	(a)	--	ENSR. 2001
Site H	Construction worker	Groundwater	inhalation	Chloroform	1.38E-07	4.15E-08	2.12E+00	6.36E-01	(a)	--	ENSR. 2001
Site H	Construction worker	Subsurface Soil	inhalation	Manganese	NC	NC	4.81E+00	1.52E-01	(a)	--	ENSR. 2001
Site H	Construction worker	Subsurface Soil	ing/derm	Total PCBs	8.73E-05	4.80E-06	1.53E+02	8.40E+00	(a)	--	ENSR. 2001
Site I	Outdoor Worker	Surface Soil	ing/derm	2,3,7,8-TCDD TEQ	1.35E-04	6.83E-06	NC	NC	6.20E-03	mg/kg	ENSR. 2001
Site I	Outdoor Worker	Surface Soil	ing/derm	Total PCBs	2.85E-05	1.28E-06	1.99E+00	3.21E-01	6.10E+01	mg/kg	ENSR. 2001
Site I	Construction Worker	Subsurface Soil	ing/derm	Antimony	NC	NC	2.72E+00	2.99E-01	(a)	--	ENSR. 2001
Site I	Construction Worker	Leachate	inhalation	Chlorobenzene	NC	NC	1.22E+00	1.07E-01	(a)	--	ENSR. 2001
Site I	Construction Worker	Leachate	inhalation	Chloroform	1.89E-06	1.43E-07	2.89E+01	2.19E+00	(a)	--	ENSR. 2001
Site I	Construction Worker	Leachate	ing/derm	MCPP	NC	NC	5.74E-01	2.87E-01	(a)	--	ENSR. 2001
Site I	Construction Worker	Leachate	inhalation	Naphthalene	NC	NC	1.99E+00	5.98E-01	(a)	--	ENSR. 2001
Site I	Construction Worker	Leachate	ing/derm	Total PCBs	3.14E-06	1.57E-06	5.50E+00	2.75E+00	(a)	--	ENSR. 2001
Site I	Construction Worker	Subsurface Soil	ing/derm	Total PCBs	1.66E-06	3.17E-07	2.91E+00	5.55E-01	(a)	--	ENSR. 2001
Site I	Construction Worker	Surface Soil	ing/derm	Total PCBs	5.88E-07	5.49E-08	1.03E+00	9.62E-02	(a)	--	ENSR. 2001
Site L	Construction worker	Subsurface Soil	ing/derm	Total PCBs	2.42E-06	4.53E-07	4.24E+00	7.93E-01	(a)	--	ENSR. 2001

Notes:
2,3,7,8-TCDD TEQ - 2,3,7,8-tetrachlorodibenzo-p-dioxin toxic equivalent concentration
ENSR. 2001. Sauget Area 1 Human Health Risk Assessment. Sauget and Cahokia, Illinois. June 1, 2001 Revision 1 and August 31, 2001 Revision 2. USEPA Approved (November 13, 2001).
ENSR. 2008. Sauget Area 1 Utility Corridor Evaluation Human Health Risk Assessment. August 2008. USEPA Approved (September 10, 2008).
ing/derm - incidental ingestion and dermal contact.
inh - inhalation
MCPP - 2-(2-Methyl-4-chlorophenoxy) propionic acid.
NC - Not Calculated. No dose-response value.
PCB - Polychlorinated Biphenyl.
Highlighting indicates that the potential risk or hazard is greater than the target risk level of 1E-4 or a hazard index of one on a target organ basis, or that the potential risk or hazard drives the total above the targets.
(a) A range of remedial goal options are available, including institutional controls. Therefore, numeric remedial goal options were not derived. These COCs should be considered when making remedial decisions.